United States Environmental Protection Agency
Washington, D.C. 20460

# Water Compliance Inspection Report

## Section A: National Data System Coding (i.e., PCS)

| Transaction Code | NPDES | yr/mo/day | Inspection Type | Inspector | Fac Type |
|---|---|---|---|---|---|
| 1 [ ] 2 [5] | 3 [NYR20A2881] 11 | 12 [121121] 17 | 18 [>] | 19 [R] | 20 [1] |

Remarks

21 [ ] 66

| Inspection Work Days | Facility Self-Monitoring Evaluation Rating | BI | QA | Reserved |
|---|---|---|---|---|
| 67 [ ] 69 | 70 [ ] | 71 [ ] | 72 [ ] | 73 [ ] 74 75 [ ] 80 |

## Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

New York State Department of Transportation - Region 8
4 Burnett Boulevard
Poughkeepsie, NY 12603

| Entry Time/Date | Permit Effective Date |
|---|---|
| 11/27/2012 | 5/1/2010 |
| **Exit Time/Date** | **Permit Expiration Date** |
| 11/29/2012 | 4/30/2015 |

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Nicolas Choubeh, Acting Regional Design Engineer
Gretchen Fitzgerald, Environmental Specialist II/Construction Environmental Coordinator
Dave Graves, Statewide Stormwater Program Coordinator
Sandra Jobson, Acting Regional Environmental Manager
Chris Kappeller, Environmental Specialisti/Acting Maintenance Environmental Coordinator
Barbara Mattice, Regional Construction Engineer
Peter Teliska, Regional Transportation Maintenance Engineer
(*See audit report for others not listed here)

Other Facility Data *(e.g., SIC NAICS, and other descriptive information)*

Name, Address of Responsible Official/Title/Phone and Fax Number

Joan McDonald, Commissioner
(518) 457-6195

**Contacted** ☑ Yes ☐ No

## Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

| | | | |
|---|---|---|---|
| ☐ Permit | ☐ Self-Monitoring Program | ☐ Pretreatment | ☑ MS4 |
| ☐ **Records/Reports** | ☐ Compliance Schedules | ☐ Pollution Prevention | |
| ☐ Facility Site Review | ☐ Laboratory | ☐ Storm Water | |
| ☐ Effluent/Receiving Waters | ☐ Operations & Maintenance | ☐ Combined Sewer Overflow | |
| ☐ Flow Measurement | ☐ Sludge Handling/Disposal | ☐ Sanitary Sewer Overflow | |

## Section D: Summary of Findings/Comments

*(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)*

| SEV Codes | SEV Description |
|---|---|
| ☐☐☐☐☐ | |
| ☐☐☐☐☐ | |
| ☐☐☐☐☐ | |
| ☐☐☐☐☐ | |

See attached MS4 audit report

| Name(s) and Signature(s) of Inspector(s) | Agency/Office/Phone and Fax Numbers | Date |
|---|---|---|
| Christy Arvizu | 212-637-3961 | 2/11/2014 |
| | | |
| | | |

| Signature of Management Q A Reviewer | Agency/Office/Phone and Fax Numbers | Date |
|---|---|---|
| | 212 637 3961 | 2/16/14 |

INSTRUCTIONS

## Section A: National Data System Coding *(i.e., PCS)*

**Column 1: Transaction Code:** Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

**Columns 3-11: NPDES Permit No.** Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. *(Use the Remarks columns to record the State permit number, if necessary.)*

**Columns 12-17: Inspection Date.** Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

**Column 18: Inspection Type*.** Use one of the codes listed below to describe the type of inspection:

| | | | | | |
|---|---|---|---|---|---|
| A | Performance Audit | U | IU Inspection with Pretreatment Audit | ! | Pretreatment Compliance (Oversight) |
| B | Compliance Biomonitoring | X | Toxics Inspection | @ | Follow-up (enforcement) |
| C | Compliance Evaluation (non-sampling) | Z | Sludge - Biosolids | { | Storm Water-Construction-Sampling |
| D | Diagnostic | # | Combined Sewer Overflow-Sampling | } | Storm Water-Construction-Non-Sampling |
| F | Pretreatment (Follow-up) | $ | Combined Sewer Overflow-Non-Sampling | : | Storm Water-Non-Construction-Sampling |
| G | Pretreatment (Audit) | + | Sanitary Sewer Overflow-Sampling | ~ | Storm Water-Non-Construction-Non-Sampling |
| I | Industrial User (IU) Inspection | & | Sanitary Sewer Overflow-Non-Sampling | < | Storm Water-MS4-Sampling |
| J | Complaints | \ | CAFO-Sampling | - | Storm Water-MS4-Non-Sampling |
| M | Multimedia | = | CAFO-Non-Sampling | > | Storm Water-MS4-Audit |
| N | Spill | 2 | IU Sampling Inspection | | |
| O | Compliance Evaluation (Oversight) | 3 | IU Non-Sampling Inspection | | |
| P | Pretreatment Compliance Inspection | 4 | IU Toxics Inspection | | |
| R | Reconnaissance | 5 | IU Sampling Inspection with Pretreatment | | |
| S | Compliance Sampling | 6 | IU Non-Sampling Inspection with Pretreatment | | |
| | | 7 | IU Toxics with Pretreatment | | |

**Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.**

| | |
|---|---|
| A — State (Contractor) | O— Other Inspectors, Federal/EPA (Specify in Remarks columns) |
| B ---- EPA (Contractor) | P— Other Inspectors, State (Specify in Remarks columns) |
| E — Corps of Engineers | R — EPA Regional Inspector |
| J — Joint EPA/State Inspectors—EPA Lead | S — State Inspector |
| L ---- Local Health Department (State) | T — Joint State/EPA Inspectors—State lead |
| N — NEIC Inspectors | |

**Column 20: Facility Type. Use one of the codes below to describe the facility.**

1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 — Industrial. Other than municipal, agricultural, and Federal facilities.
3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 — Federal. Facilities identified as Federal by the EPA Regional Office.
5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

**Columns 21-66: Remarks.** These columns are reserved for remarks at the discretion of the Region.

**Columns 67-69: Inspection Work Days.** Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

**Column 70: Facility Evaluation Rating.** Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

**Column 71: Biomonitoring Information.** Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

**Column 72: Quality Assurance Data Inspection.** Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

**Columns 73-80:** These columns are reserved for regionally defined information.

## Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

## Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

## Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.

U.S. Environmental Protection Agency
Office of Compliance and Enforcement
1200 Pennsylvania Avenue, NW
Washington, DC 20460

U.S. Environmental Protection Agency, Region 2
290 Broadway
New York, NY 10007-1866

# MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) COMPLIANCE AUDIT

## NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8

## AUDIT REPORT

**Audit Dates:**
**November 27–29, 2012**

**Report Date:**
**January 29, 2013**

# CONTENTS

# Section 1.0 Introduction

On November 27-29, 2012, the U.S. Environmental Protection Agency (EPA) Region 2, and an EPA contractor, PG Environmental, LLC (hereinafter, collectively, the EPA Audit Team) conducted an audit of the Municipal Separate Storm Sewer System (MS4) Program of the New York State Department of Transportation (hereinafter, NYSDOT).

Discharges from NYSDOT's MS4 are regulated under New York State Department of Environmental Conservation's (NYSDEC) *State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems*, Permit No. GP-0-10-002 (SPDES ID No. NYR20A288; hereinafter, the Permit; see Appendix A), effective May 1, 2010. The Permit is set to expire on April 30, 2015.

NYSDOT submitted its Notice of Intent (NOI) for coverage under the *General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems*, Permit No. GP-02-02, on March 10, 2003. NYSDOT subsequently received coverage under the SPDES General Permit (GP-02-02) (NYR20A288), which became effective January 8, 2003 and expired on January 8, 2008. Permit coverage remained in full force and effect and was automatically carried over upon the reissuance of SPDES General Permit (GP-08-002), which became effective on May 1, 2008 and expired on April 30, 2010. Upon expiration, permit coverage was automatically carried over to the current permit, SPDES General Permit (GP-0-10-002), which became effective on May 1, 2010 and expires on April 30, 2015.

Part IV.A of the Permit requires NYSDOT to "develop, implement, and enforce a SWMP [stormwater management program] designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable." Part IV.A goes on to explain that NYSDOT, as a covered entity under the previous MS4 permit [Permit No. GP-0-08-002], must have prepared a SWMP plan documenting modifications to its stormwater management program. Pursuant to this requirement, NYSDOT prepared the New York State Department of Transportation Stormwater Management Program Plan (hereinafter, NYSDOT SWMP Plan). In response to the EPA Audit Team's request, NYSDOT provided a copy of its most recently updated SWMP Plan, dated May 2012 (see Appendix B). This document is referenced, as applicable, throughout the audit report.

NYSDOT's transportation network comprises more than 113,000 miles of highway, 17,400 bridges, 3,500 miles of railway, and almost 500 aviation facilities. NYSDOT is separated into 11 distinct regions with the NYSDOT main office headquarters located in Albany, NY.

Though NYSDOT has implemented a statewide MS4 Program, and its SWMP Plan addresses statewide implementation, this audit focused on implementation of the MS4 program in NYSDOT Region 8, which serves the following counties: Columbia, Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester.

The audit focused on the following four of the minimum control measures (MCMs) described in Part VIII of the Permit.

- MCM 3 Illicit Discharge Detection and Elimination (IDDE)
- MCM 4 Construction Site Stormwater Runoff Control
- MCM 5 Post-construction Stormwater Management
- MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations

In addition, the EPA Audit Team discussed with NYSDOT staff several additional watershed specific requirements included in the Permit.

The purpose of the audit was to obtain information that will assist EPA in assessing NYSDOT's compliance with the requirements of the Permit and associated SWMP Plan, as well as the implementation status of the current MS4 Program. The audit agenda is presented as Appendix C.

The EPA Audit Team obtained information through a series of interviews with the NYSDOT Statewide Stormwater Program Coordinator and representatives from NYSDOT Region 8, along with a series of site visits, record reviews, and field verification activities.

Intermittent precipitation was experienced during the audit field activities.

The primary representatives involved in the audit were the following:

| **NYSDOT Region 8 MS4 Program Compliance Audit: November 27–29, 2012** | |
|---|---|
| NYSDOT State Representative | Dave Graves, Statewide Stormwater Program Coordinator |
| NYSDOT Region 8 Representatives | Sandra Jobson, Acting Regional Environmental Manager<br>Scott Davis, Environmental Specialist<br>Gretchen Fitzgerald, Environmental Specialist II/Construction Environmental Coordinator (CEC)<br>Aileen Helsley, Environmental Specialist I<br>Stephanie DeLano, Environmental Specialist I<br>Steve MacAvery, Environmental Specialist II<br>Chris Kappeller, Environmental Specialist I/Acting Maintenance Environmental Coordinator (MEC)<br>Jessica Andersen, Environmental Specialist I<br>Peter M. Teliska, Regional Transportation Maintenance Engineer<br>Barbara Mattice, Region Construction Engineer<br>Nicolas Choubeh, Acting Regional Design Engineer |
| NYSDOT Consultants | Jannine McColgan, Senior Tech Director, AKRF Engineers, Inc.<br>Jennilee Harrison, Project Engineer, AKRF Engineers, Inc. |

| | |
|---|---|
| NYSDEC Representative | Natalie Browne, Environmental Program Specialist II, Region 3 |
| EPA Representatives | Christy Arvizu, EPA Region 2<br>Chris Mecozzi, EPA Region 2 |
| EPA Contractors | Max Kuker, PG Environmental, LLC<br>Bobby Jacobsen, PG Environmental, LLC<br>Anthony D'Angelo, PG Environmental, LLC |

# Section 2.0 Information Obtained Regarding Compliance with the Permit

The EPA Audit Team conducted an evaluation of NYSDOT's MS4 Program to obtain information that will assist EPA in assessing compliance with the requirements of the Permit.

Prior to the audit, the EPA Audit Team formally requested that NYSDOT have specific documentation available for review at the time of the audit. The EPA Audit Team provided NYSDOT with a "Pre Audit Questionnaire and Records Request" on October 30, 2012 (hereinafter, EPA Records Request; see Appendix D). In response, NYSDOT provided the EPA Audit Team with a digital copy of the completed questionnaire and inventory of provided documents (hereinafter, NYSDOT Response Inventory; see Appendix E). In addition, NYSDOT made multiple documents available during the audit and provided additional documents subsequent to the audit. The EPA Records Request and NYSDOT Response Inventory are referenced, as applicable, throughout this audit report.

During the audit, the EPA Audit Team obtained documentation and other supporting evidence regarding compliance with the Permit and NYSDOT's implementation of the SWMP Plan. Pertinent information obtained during the evaluation is presented in this report as audit observations. The presentation of audit observations in this report does not constitute a formal compliance determination or notice of violation, but rather identifies the status of program implementation and areas of potential non-compliance. Referenced documentation used as supporting evidence is provided in Appendix F, the Exhibit Log. In addition, individual site write-ups from NYSDOT construction site visits and NYSDOT operation and maintenance facility inspections conducted as a component of the audit are provided in Appendix G and Appendix H, respectively.

Table 1 provides a summary of the EPA Audit Team's overall audit observations. Descriptions and details regarding the audit observations, as well as supporting documentation, are provided in the applicable sections of the MS4 audit report.

**Table 1. Requirements of NYSDOT's NPDES Permit (GP-0-10-002; SPDES ID No. NYR20A288) and Observations Identified by the EPA Audit Team**

| Minimum Control Measures and Permit Requirements | Observations |
|---|---|
| **Stormwater Management Program**<br><br>Part IV.A of the Permit requires NYSDOT to develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (MEP).<br><br>See Section 2.1 of the audit report for the specific permit references for each observation. | 1. Measurable Goals (Section 2.1.1).<br><br>See the referenced section of the audit report for discussion of issues related to measurable goals. |
| **Illicit Discharge Detection and Elimination (IDDE)**<br><br>Part VIII.A.3.a of the Permit requires NYSDOT to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. The program must include the specific requirements for program implementation identified at Parts VIII.A.3.b–k of the Permit.<br><br>See Section 2.2 of the audit report for the specific permit references for each observation. | 1. NYSDOT did not have a written directive from the person authorized to sign the Notice of Intent (NOI) stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for the IDDE program (Section 2.2.1).<br>2. NYSDOT had developed a map displaying the location of MS4 outfalls and was in the process of verifying the location of outfalls that were previously mapped by a consultant as well as conducting dry weather screening activities (Section 2.2.2).<br>3. NYSDOT had not identified the preliminary boundaries of its storm sewersheds in its GIS-based MS4 map (Section 2.2.3).<br>4. NYSDOT had not developed and implemented procedures for eliminating illicit discharges or conducting follow-up activities for identified illicit discharges (Section 2.2.4).<br>5. NYSDOT had not informed the public of the hazards associated with illegal discharges and the improper disposal of waste (Section 2.2.5).<br><br>See the referenced sections of the audit report for further discussion of these issues. |
| **Construction Site Stormwater Runoff Control**<br><br>Part VIII.A.4 of the Permit requires NYSDOT to develop, implement, and enforce a program to address stormwater runoff from construction sites that satisfies the requirements at Part VIII.A.4.a.i–x of the Permit. | 1. Deficiencies were noted during construction site visits conducted as a component of the audit (Section 2.3.1).<br>2. The EPA Audit Team noted instances in which construction site stormwater runoff control inspections were performed more than seven calendar days apart (Section 2.3.2).<br>3. NYSDOT did not have written procedures to ensure that consultant stormwater inspectors have certifications/qualifications at least |

| Minimum Control Measures and Permit Requirements | Observations |
|---|---|
| See Section 2.3 of the audit report for the specific permit references for each observation. | equivalent to those outlined in the NYS Construction General Permit prior to conducting erosion and sediment control inspections for NYSDOT projects (Section 2.3.3).<br>4. NYSDOT had not developed or implemented procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site stormwater runoff (Section 2.3.4).<br>5. NYSDOT maintained multiple lists and databases that include information regarding active construction sites (Section 2.3.5).<br><br>See the referenced sections of the audit report for further discussion of these issues. |
| **Post-construction Stormwater Management**<br><br>Part VIII.A.5 of the Permit requires NYSDOT to develop, implement, and enforce a program to address post-construction stormwater management that satisfies the requirements at Part VIII.A.5.a–d of the Permit.<br><br>See Section 2.4 of the audit report for the specific permit references for each observation. | 1. NYSDOT did not have a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for construction projects on NYSDOT property (Section 2.4.1).<br><br>See the referenced section of the audit report for further discussion of this issue.<br><br>Section 2.4 of the audit report provides additional observations regarding NYSDOT's program for post-construction stormwater management. |
| **Pollution Prevention and Good Housekeeping for Municipal Operations**<br><br>Part VIII.A.6.a of the Permit requires NYSDOT to develop and implement a pollution prevention/good housekeeping program for municipal operations and facilities that satisfies the requirements at Part VIII.A.6.a–e of the Permit.<br><br>See Section 2.5 of the audit report for the specific permit references for each observation. | 1. NYSDOT had not performed and documented a self-assessment of all municipal operations and facilities (Section 2.5.1).<br>2. NYSDOT had not developed or implemented an adequate pollution prevention/good housekeeping training program (Section 2.5.2).<br>3. NYSDOT had not developed or implemented SWPPPs for its operation and maintenance facilities (Section 2.5.3).<br>4. Deficiencies were noted during inspections of NYSDOT residencies and fixed facilities conducted as a component of the audit (Section 2.5.4).<br><br>See the referenced sections of the audit report for further discussion of these issues. |

## *Section 2.1 Stormwater Management Program Observations*

Part IV.A of the Permit requires NYSDOT to develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (MEP).

### 2.1.1 Measurable Goals

NYSDOT had not articulated the overarching outcomes that it is attempting to achieve in its stormwater management program. Furthermore, NYSDOT had not developed measurable goals that can be effectively used to quantify and track progress in achieving program outcomes and requirements. The EPA Audit Team observed that many of the measurable goals contained in NYSDOT's SWMP Plan appear generic in nature, are not designed to determine the effectiveness of the NYSDOT's stormwater management program, and lack a schedule or date of completion and quantifiable targets to measure progress toward achieving the activity of the best management practice (BMP).

NYSDOT should develop adequate measurable goals to gauge Permit compliance and program effectiveness for each MCM included in the SWMP Plan and should select measurable goals using an integrated approach that fully addresses the requirements and intent of each MCM.

## *Section 2.2 Illicit Discharge Detection and Elimination*

Part VIII.A.3.a of the Permit requires NYSDOT to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. The program must include the specific requirements for program implementation identified at Parts VIII.A.3.b–k of the Permit.

### 2.2.1. NYSDOT did not have a written directive from the person authorized to sign the Notice of Intent (NOI) stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for the IDDE program.

Part VIII.A.3.f.ii of the Permit requires NYSDOT to develop and implement the following:

> a written directive from the person authorized to sign the NOI [Notice of Intent] stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing the mechanisms for the covered entity's IDDE program.

The EPA Audit Team formally requested NYSDOT's "[w]ritten directive from person authorized to sign NOI stating regulatory mechanisms must be used and describing positions responsible for compliance" (EPA Records Request Item No. 10); however, NYSDOT did not provide the requested information. In response, NYSDOT provided a document titled "Region 8 MS4 Coordination Vacancy Announcement" (see Appendix F, Exhibit 1), which was a NYSDOT regional bulletin describing an MS4-related job opening. Further, NYSDOT staff did not provide the written directive during the audit.

### 2.2.2. NYSDOT had developed a map displaying the location of MS4 outfalls and was in the process of verifying the location of outfalls that were previously mapped by a consultant as well as conducting dry weather screening activities.

Part VIII.A.3.b.i of the Permit requires NYSDOT to do the following:

> Develop (for newly authorized MS4s) and maintain a map, at a minimum within the covered entity's jurisdiction in the urbanized area and additionally designated area, showing: the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls.

Furthermore, Part VIII.A.3.c of the Permit requires NYSDOT to field verify outfall locations; Part VIII.A.3.d of the Permit requires NYSDOT to conduct outfall reconnaissance activities for outfalls in the urbanized area at least once every five years; and Part VIII.A.3.e of the Permit requires NYSDOT to map new outfalls as they are constructed or discovered within the urbanized area or additionally designated area(s).

Pursuant to these requirements, Section III.2.a of the NYSDOT SWMP Plan states, "By April 2008, NYSDOT had mapped 18,184 outfalls located along state-owned highways within the Designated Urbanized Areas in New York." Table III.1 – *Number of Stormwater Outfalls Mapped in Designated Urbanized Areas, 2004-2008,* located in Section III.2.a of the NYSDOT SWMP Plan identifies that NYSDOT Region 8 has 8,188 outfalls. Section III.2.c of the NYSDOT SWMP Plan additionally references Engineering Instruction (EI) No. 07-033 and states that the document "provides guidance regarding

stormwater outfall mapping data collection, inventory and distribution between Regional Design, Construction and Maintenance Groups, and contains protocol for capturing and documenting outfall and associated attribute data for outfalls that are newly constructed, relocated, or removed, and to have those changes incorporated into the database."

NYSDOT staff explained that consultants to NYSDOT conducted an initial outfall mapping project in NYSDOT Region 8 from late 2006 through early 2008 to identify outfall locations in a geographic information system (GIS)-based map. NYSDOT staff explained that they did not have high confidence in the data gathered during the project. The NYSDOT Acting Regional Environmental Manager explained NYSDOT hired another consultant, AKRF Engineers, Inc. (hereinafter, AKRF), to conduct MS4 outfall verification and screening activities under a term contract titled "Stormwater Quality Agreement."

The consultant was first assigned to conduct activities in the East of Hudson area and then NYSDOT directed the consultant to expand its efforts to include the urbanized areas within Westchester County. According to the NYSDOT Environmental Specialist I (Ms. Jessica Andersen), at the time of the inspection, the consultant had completed about 89 percent of the total of the two areas: East of Hudson and Westchester County (3,900 out of 4,381 outfalls). The NYSDOT Acting Regional Environmental Manager explained that there was no specific performance goal for annual outfall verification and screening activities, but the Department is attempting to complete the efforts during the term of the Permit. She stated that outfall verification and screening activities would be complete in the East of the Hudson area, Westchester County, and Putnam County before the end of the Permit term; the four remaining counties (Dutchess, Rockland, Orange, and Ulster) may not be entirely finished by the end of the Permit term. The NYSDOT Acting Regional Environmental Manager explained that there was not a formal priority schedule for the outfall verification and screening activities, but in the future they would likely follow a similar pattern, starting with East of Hudson and moving to Westchester County, Rockland County, Orange County, Dutchess County, and Ulster County, in that order. Part VIII.A.3.d of the Permit requires NYSDOT to conduct outfall reconnaissance activities for outfalls in the urbanized area at least once every five years, with reasonable progress each year. NYSDOT's outfall reconnaissance activities under the current Permit must be completed by April 30, 2015.

NYSDOT and AKRF representatives explained that they had developed a process and procedures document for outfall inventory and screening activities based on the EPA publication titled *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment*. The process and procedures document provided by NYSDOT is titled "Instructions for Conducting Outfall Inspections," dated June 2012 (see Appendix F, Exhibit 2).

The NYSDOT Environmental Specialist I (Ms. Jessica Andersen) explained that AKRF Engineering had identified 10 new outfalls, moved 24 existing outfall locations on the outfall map, and removed 931 outfalls which were previously identified as NYDOT outfalls but did not meet NYSDOT's definition of an outfall. This information is included

in an AKRF memorandum dated November 13, 2012 (see Appendix F, Exhibit 3). Procedures for properly identifying, recording, and mapping outfalls discovered, moved, and removed by the hired consultant are outlined in the AKRF memorandum to NYSDOT dated July 30, 2010 (see Appendix F, Exhibit 4).

NYSDOT staff explained that newly constructed outfalls are identified by project engineers and information regarding the outfalls is documented on the NYSDOT "Form HC-107." Construction staff is responsible for capturing GPS locations for the outfalls which are then uploaded to NYSDOT's GIS-based map.

On November 28, 2012, representatives from the EPA Audit Team met with NYSDOT personnel and staff from AKRF to discuss the outfall inventory, verification, and screening activities which were being conducted in NYSDOT Region 8. The following is a summary of observations and discussions that took place during the meeting:

a. The AKRF Senior Tech Director explained that AKRF coordinated with NYSDOT to determine the definition of what constitutes an outfall using NYSDOT's MS4. The original mapping of the system done by another consultant identified "everything imaginable" as an outfall from the system (e.g., gullies down the side of a slope, culvert crossings).
b. The AKRF Senior Tech Director explained that locations where NYSDOT's MS4 connects to another regulated MS4 would be mapped as an outfall in the GIS-based map. In the GIS attributes, the ownership of the MS4 which NYSDOT connects to is sometimes noted.
c. AKRF and NYSDOT staff explained that locations where a pipe discharged from NYSDOT's system to a stream, wetland, or drainage channel would be considered an outfall. Subsurface drainage pipes (e.g., underdrains and bridge scupper drains) would not be considered outfalls, and, if they were already on the GIS-based map, they would be removed.
d. The AKRF Senior Tech Director explained that AKRF did not evaluate outfalls to determine if they were technically within NYSDOT's right-of-way. The NYSDOT Environmental Specialist explained that the consultant who originally mapped the MS4 had access to information about NYSDOT's right-of-ways. The NYSDOT Environmental Specialist stated she believed that the map included outfalls that might be outside of the right-of-way.
e. The AKRF representatives explained that the outfall pipes would be categorized into the following size categories: (1) less than 12 inches, (2) 12 inches to 35 inches, (3) 36 inches to 48 inches, and (4) greater than 48 inches.
f. The AKRF field staff has a portable tablet computer with GPS capabilities that has been uploaded with the original GIS-based map of NYSDOT's MS4 generated by a previous consultant. The AKRF Project Engineer explained that they use the mapped points in the system and their current GPS location to help identify the location of the outfalls. When the location of a mapped outfall is identified, the identified outfall is assessed to determine whether it qualifies as an outfall based on NYSDOT's definition. If it does not qualify as an outfall, it is removed from the GIS-based map. If it is determined to be an outfall, the actual

location is compared to the mapped location and modified directly in the portable tablet computer if needed. In addition, attributes about the outfall are confirmed (e.g., size, material).

g. The AKRF Senior Tech Director explained that when a verified outfall is observed, it is screened to determine the presence of dry weather flow. If there is flow, staff documents the color, odor, and any floatables noted in or around the outfall. Outfall screening activities are conducted more than 48 hours after the most recent rainfall or snowmelt event.

h. The AKRF Senior Tech Director explained that if a suspected illicit discharge or illicit connection is detected by AKRF field staff, AKRF notifies NYSDOT of the observation via e-mail within 48 hours of the observation. The NYSDOT Environmental Specialist II (Mr. Steve MacAvery) and NYSDOT Environmental Specialist I (Ms. Jessica Andersen) explained that after receiving information about the suspected illicit discharge or connection from AKRF, they would go to the field to verify the observations and contact additional entities (e.g., NYSDEC or New York State Department of Health) for response if needed.

i. During the field activity, AKRF representatives showed the EPA Audit Team an example of an outfall which had been previously mapped but was removed because it was culvert crossing underneath the roadway, not an MS4 outfall (Outfall ID 107921) and an example of an outfall which had been verified (Outfall ID 107919).

### 2.2.3. NYSDOT had not identified the preliminary boundaries of its storm sewersheds in its GIS-based MS4 map.

Part VIII.A.3.b of the Permit requires that NYSDOT do the following:

> Develop (for newly authorized MS4s) and maintain a map, at a minimum within the covered entity's jurisdiction in the urbanized area and additionally designated area, showing [that]…by March 9, 2010, the preliminary boundaries of the covered entity's storm sewersheds have been determined using GIS or other tools, even if they extend outside of the urbanized area.

Part X of the Permit defines a storm sewershed as, "the catchment area that drains into the storm sewer system based on the surface topography in the area served by the storm sewer. Adjacent catchment areas that drain to adjacent outfalls are not separate storm sewersheds."

Section III.2.b of the NYSDOT SWMP Plan explains that NYSDOT has a comprehensive digital repository of "As-Built Contract Plans" that show drainage networks at a scale sufficient to determine drainage direction and connections. The NYSDOT SWMP Plan further explains the "As-Built Contract Plans" would be used to determine the source of suspected illicit discharges in the NYSDOT right-of-way. Section III.2.b of the NYSDOT SWMP Plan states, "Because these plans would be used to conduct trackdown of suspected illicit discharge, and have such good detail (showing land features in the right-of-way), NYSDOT considers these to satisfy current MS4 requirements for 'preliminary boundaries' and 'system mapping.'"

During the audit, the NYSDOT Statewide Stormwater Program Coordinator stated that the storm sewersheds had not been mapped in NYSDOT's GIS-based map; however, NYSDOT staff stated that they were able to use the record plans associated with each individual NYSDOT project as tools to track flows upstream for IDDE activities. The NYSDOT Environmental Specialist I (Ms. Stephanie Delano) explained that NYSDOT Region 8 had record plans dating back to 1919, and had developed a record plan layer in its GIS-based map to denote areas of the system for which these plan sets were recorded. She stated this had not been done for the entire region, but numerous record plans had been added to the GIS system. A demonstration of the record plan layer of the GIS was presented to the EPA Audit Team during the audit opening conference on November 27, 2012.

### 2.2.4. NYSDOT had not developed and implemented procedures for eliminating illicit discharges or conducting follow-up activities for identified illicit discharges.

Part VIII.A.3.g of the Permit requires NYSDOT to do the following:

> Develop (for newly authorized MS4s) and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the small MS4. The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for the IDDE program, description of priority areas of concern, available equipment, staff, funding, etc.; procedures for identifying and locating illicit discharges (trackdown); *procedures for eliminating illicit discharges* [emphasis added]; and procedures for documenting actions.

Section III.1.a of the NYSDOT SWMP Plan identifies subsection 8.2.3 of the *Highway Design Manual,* "Chapter 8: Highway Drainage" as containing a policy regarding "private connections and discharges to NYSDOT's stormwater system." The EPA Audit Team reviewed subsection 8.2.3 of the NYSDOT *Highway Design Manual* and noted that the guidance document explains that NYSDOT staff should contact New York State Department of Health (NYSDOH) regarding illicit connections to the MS4.

The NYSDOT SWMP Plan also states, "to address the issue that these connections may result in illicit discharges entering the state drainage system, NYSDOT has developed a DRAFT Engineering Instruction to clarify and emphasize department policy regarding sanitary connections, stormwater connections, sanitary discharges, and illicit discharges." The EPA Audit Team did not receive a copy of the draft engineering instruction. It was unclear to the EPA Audit Team whether the draft document includes procedures for eliminating illicit discharges or follow-up activities to ensure that identified illicit discharges are eliminated.

The EPA Audit Team formally requested NYSDOT's written procedures for field screening outfalls and procedures for IDDE (EPA Records Request Item No. 18). In response, NYSDOT provided an electronic document titled "13_18 outfall inspection training and procedures.pdf" which includes outfall inspection training information, and NYSDOT's "Instructions for Conducting Outfall Inspections," dated June 2012, with its associated attachments (see Appendix F, Exhibit 5). The training information description states, "This training is intended to educate regional staff about the current stormwater regulations, how to identify outfalls and illicit discharges, and how to update the outfall

database, using either GPS/GIS technology, or a low-tech method using paper maps and forms." The documents provided do not include specific procedures for eliminating illicit discharges or follow-up activities to ensure that identified illicit discharges are eliminated.

The EPA Audit Team formally requested "procedures for receiving and investigating public/employee complaints"; however, NYSDOT did not provide the requested information. In the NYSDOT Response Inventory (see Appendix E, Item No. 11), NYSDOT replied that such procedures are identified in the NYSDOT *Environmental Handbook for Transportation Operations: Snow and Ice Procedures*; however, the EPA Audit Team could not identify procedures within the handbook (dated June 2011) that addressed the records request item or the requirements of Part VIII.A.3.g of the Permit. NYSDOT personnel explained that Chapter 8 of the *Highway Design Manual* authorizes the disconnection of an illicit connection, as discussed above.

The NYSDOT Statewide Stormwater Program Coordinator explained to the EPA Audit Team that procedures for receiving and investigating public/employee complaints are outlined in the NYSDOT *Environmental Handbook for Transportation Operations*. In addition, the official explained that a stormwater complaint e-mail address is listed on the NYSDOT Stormwater Web page so the public can register electronic complaints about stormwater-related issues. Suspicious discharge e-mails received by the NYSDOT Acting Regional Environmental Manager's office are maintained; however, the information is not maintained in a separate centralized database.

The NYSDOT Acting Regional Environmental Manager explained that when an illicit discharge is reported to NYSDOT by its staff or the public, NYSDOT notifies NYSDEC, and conducts its own follow-up inspection to trace the flow upstream as far as feasible. NYSDOT does not have procedures to investigate illicit discharges other than sending information to NYSDEC for follow-up.

The EPA Audit Team observed that several NYSDOT staff interviewed during the inspection were not aware of what an illicit discharge is or how to identify one. The EPA Audit Team observed instances of illicit discharges occurring at the NYSDOT residency facilities. These illicit discharges include evidence of paint equipment cleaning activities, oil/fluid spills, and a number of undesignated vehicle/equipment wash areas that were not properly equipped to capture or treat wash water. These site observations are further described in Section 2.5.4 of the audit report.

### 2.2.5. NYSDOT had not informed the public of the hazards associated with illegal discharges and the improper disposal of waste.

Part VIII.A.3.h of the Permit requires NYSDOT to do the following:

> Inform the public of the hazards associated with illegal discharges and the improper disposal of waste.

During the audit, NYSDOT Region 8 staff stated that NYSDOT had not provided formal outreach to the public regarding these issues. Furthermore, NYSDOT Region 8 staff did

not provide the EPA Audit Team with documentation to demonstrate that the public had been informed of the definitions or hazards of illegal discharges or improper waste disposal.

The NYSDOT Statewide Stormwater Program Coordinator explained that NYSDOT had established a page on its Web site that has information regarding NYSDOT's stormwater program. Section III.2.e of the NYSDOT SWMP Plan states, "Since April 2004, NYSDOT has maintained a webpage devoted specifically to Stormwater Management issues, and can be found at http://www.dot.ny.gov/divisions/engineering/environmental-analysis/water-ecology/stormwater-management. It contains material related to NYSDOT's Construction and MS4 Stormwater Management Programs, and specifically contains reports and websites about the sources of, and potential impacts on water bodies from, Phosphorus, Nitrogen, and Pathogens, and illicit dischargers." The EPA Audit Team viewed the Web site and noted that while it contains multiple links to documents and information about the stormwater program, it does not appear to provide targeted information to inform the public about the hazards associated with illegal discharges and the improper disposal of waste.

### 2.2.6. NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Illicit Discharge Detection and Elimination MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.3.f of the Permit requires NYSDOT to "[p]rohibit illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions."
- Part VIII.A.3.i of the Permit requires NYSDOT to "[a]ddress the categories of non-stormwater discharges or flows listed in Part I.A.2 as necessary and maintain records of notification."
- Part VIII.A.3.j of the Permit requires NYSDOT to "[d]evelop (for newly authorized MS4s), record, periodically assess, and modify as needed, measurable goals."
- Part VIII.A.3.k of the Permit requires NYSDOT to "[s]elect and implement appropriate IDDE best management practices (BMPs) and measurable goals to ensure the reduction of all pollutants of concern (POCs) in stormwater dischargers to the MEP."

## *Section 2.3 Construction Site Stormwater Runoff Control*

Part VIII.A.4 of the Permit requires NYSDOT to develop, implement, and enforce a program to address stormwater runoff from construction sites that satisfies the requirements at Part VIII.A.4.a.i–x of the Permit.

The program must provide equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (hereinafter, Construction General Permit) and address stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or are part of a larger common plan of development that would disturb more than one acre.

For sites larger than one acre, NYSDEC requires the implementation of erosion and sediment controls; the department also requires specialized training for erosion and sediment control inspectors. Additionally, Section IV of the NYSDOT SWMP Plan states that permittees are required to implement and enforce a program that addresses stormwater runoff to the small MS4 from construction activities that result in land disturbance of greater than or equal to one acre, and for disturbances less than one acre if the construction activity is part of a larger common plan of development or if controlling such activities in a particular watershed is required by NYSDEC. Section IV.1.b of the NYSDOT SWMP Plan states, "All temporary controls shall be inspected by the Contractor every seven calendar days and after each rainfall of ½ inch or more within a 24 hour period to determine if the measure is functioning as intended. All inspections shall be completed within one calendar day."

The EPA Audit Team discussed NYSDOT's construction stormwater program with multiple NYSDOT staff, including NYSDOT's Construction Environmental Coordinator (CEC). The NYSDOT CEC and NYSDOT Environmental Specialist I (Ms. Aileen Helsley) explained that NYSDOT or its design consultant prepares an initial erosion and sediment control plan for each construction project. Then NYSDOT requires the contractor to provide an updated plan to address specific on-site items such as construction entrances and staging areas. This requirement is discussed in a NYSDOT memorandum dated May 28, 2008 (see Appendix F, Exhibit 6). They further stated that each contractor is required to implement the erosion and sediment control plan.

The NYSDOT CEC explained that NYSDOT assigns an Engineer-in-Charge (EIC) to provide oversight for each construction project. A NYSDOT environmental specialist or consultant inspector (i.e., not the EIC) conducts construction stormwater inspections of each construction site at least once every seven calendar days and after rainfall events producing greater than 0.5 inch of precipitation. The inspector shares inspection findings with the EIC who is ultimately responsible for directing the on-site contractor. Aside from on-site communication with the contractor, NYSDOT staff explained that the EIC has two primary enforcement capabilities for addressing erosion and sediment control issues with non-compliant contractors: (1) implementing a stop-work order, and (2) withholding payment. It should be noted that the CEC does not have direct ability to enforce the requirements of erosion and sediment control plans.

### 2.3.1 Deficiencies were noted during construction site visits conducted as a component of the audit.

On November 27–29, 2012, the EPA Audit Team, along with NYSDOT staff, visited four NYSDOT construction projects within the urbanized area. The primary purpose of the site visits was to document site conditions and to assess NYSDOT's and the contractor's oversight activities for stormwater runoff control at the construction sites. During the site visits, the EPA Audit Team walked the construction sites with NYSDOT and contractor representatives.

The following construction sites were visited during the audit:

- Route 9W at Short Clove Road Construction Project.
- Route 9W over Cedar Pond Brook Stage 2 Construction Project.
- Sprain Brook Parkway over Route 119 Construction Project.
- Interstate 287 Interchange 8 Construction Project.

The EPA Audit Team identified multiple findings regarding erosion and sediment control and good housekeeping for several of the construction sites. Detailed observations and photographs from the site visits are presented in individual site visit reports included as Appendix G. A summary of observations from each site visit follows.

*Route 9W at Short Clove Road Construction Project* – The project included construction of a new Short Clove Road, including two bridges and a signaled intersection, to connect Riverside Avenue with Route 9W and eliminate the existing Short Clove Road. The NYSDOT EIC for the project stated that active construction started in fall 2008 and finished in November 2011, but the contract for the project was still active due to multiple punch list items which had not yet been resolved. The NYSDOT Environmental Specialist (Mr. Scott Davis) explained that NYSDOT's consultant inspection agent for the project, TRC Companies, Inc., was responsible for performing stormwater inspections on a weekly basis and after rainfall events.

The NYSDOT Environmental Specialist (Mr. Scott Davis) explained that the project's coverage under the Construction General Permit was still active, but he had performed a final inspection of the site during the previous week on November 21, 2012, to enable NYSDOT to file its notice of termination (NOT) for the site. Vegetation had been established at the site and no specific site deficiencies were noted during the site visit.

*Route 9W over Cedar Pond Brook Stage 2 Construction Project* – The project was a bridge replacement project being completed in two stages. The first stage consisted of removal and replacement of the existing bridge over Cedar Pond Brook and was completed two or three springs prior to the inspection. At the time of the inspection, the project was in the second stage, which consists of realignment of the intersection to the north of the bridge, widening of the roadway to the south of the bridge, and drainage system installation. Stormwater from the construction project area discharges to Cedar Pond Brook.

The NYSDOT Environmental Specialist (Mr. Scott Davis) explained that he conducted stormwater inspections of the project on a weekly basis and after rainfall events of greater than 0.5 inch. Physical issues noted during the site visit include the following:

1. Improper materials storage in the northern staging area.
2. Deteriorated sand bags upgradient of a storm drain inlet and scupper drain inlet on the bridge.
3. Silt fence installation issues for silt fence around soil stockpile in the southern staging area.
4. Accumulated sediment in rock-lined construction entrance to southern staging area.

*Sprain Brook Parkway over Route 119 Construction Project* – The project consists of replacing two bridges on Sprain Brook Parkway over Route 119. The two bridges are located side-by-side—one northbound, one southbound. The construction activities will include building new abutments, widening sections of Sprain Brook Parkway, replacing curb and guardrail, and constructing temporary cross-over roads for traffic management during bridge replacement activities. The project includes a temporary construction staging area located about 1.5 miles north of the Sprain Brook Parkway Bridge over Route 119. The staging area is located between the southbound Sprain Brook Parkway exit and entrance ramps at Grasslands Road (Route 100C).

The NYSDOT Environmental Specialist (Ms. Aileen Helsley) explained that she conducts stormwater inspections of the project on a weekly basis and after rainfall events of greater than 0.5 inch. Physical issues noted during the site visit include the following:

1. Silt fence installation and maintenance issues in the staging area.
2. Sediment in roadway from vehicle tracking.
3. Silt fence installation and maintenance issues in the active construction area.
4. Lack of inlet protection for storm drain inlet in active construction area.

*Interstate 287 Interchange 8 Construction Project* – The project consisted of three main phases, and the project was in its third phase at the time of the inspection. Generally, the project involved construction of two new service roadways, bridge construction, and bridge removal. The NYSDOT EIC explained that a significant component of the project was the construction of a culvert crossing for the Mamaroneck River to flow underneath the new Westchester Avenue westbound ramp. The NYSDOT EIC estimated that the project would be about 95 percent complete by the end of December 2012.

The NYSDOT Environmental Specialist (Mr. Scott Davis) explained that NYSDOT's consultant inspection agent for the project, HAKS, was responsible for performing stormwater inspections on a weekly basis and after rainfall events. A subcontractor to HAKS, KS Engineering, had been conducting the stormwater inspections. Physical issues noted during the site visit include the following:

1. Silt fence maintenance issues.

2. Sediment on roadways from vehicle tracking.
3. Evidence of erosion upgradient of a post-construction BMP.
4. Housekeeping issues, including materials storage, perimeter control, and vehicle tracking, in the contractor staging area.

### 2.3.2. The EPA Audit Team noted instances in which construction site stormwater runoff control inspections were performed more than seven calendar days apart.

Part VIII.A.4.a.i of the Permit requires NYSDOT to do the following:

> Develop (for newly authorized MS4s), implement, and enforce a program that provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (hereinafter, Construction General Permit).

Part IV.A.1 of the Construction General Permit requires the owner or operator to ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the stormwater pollution prevention plan (SWPPP) are maintained in effective operating condition at all times. Furthermore, Part IV.C.2.a of the Construction General Permit states that for construction sites where soil disturbance activities are on-going, the qualified inspector shall conduct a site inspection at least once every seven calendar days. The Construction General Permit includes alternative inspection frequencies for projects that disturb more than five acres of soil at any one time, sites where construction activity is temporarily suspended, or projects that are partially completed.

Section IV.1.b of the NYSDOT SWMP Plan states that all temporary controls shall be inspected by the contractor every seven calendar days and after each rainfall of 0.5 inch or more within a 24-hour period to determine if the control is functioning as intended. NYSDOT staff explained that the contractor is required to conduct these site inspections on a weekly basis, but is not required to document the inspections. As stated above, NYSDOT staff explained that a NYSDOT environmental specialist or consultant inspector (i.e., not the EIC) conducts construction stormwater inspections of each construction site at least once every seven calendar days and after rainfall events producing greater than 0.5 inch of precipitation within a 24-hour period. These inspections are documented on the "MURK-6" inspection form by the inspector who conducted the inspection.

The EPA Audit Team requested construction stormwater runoff control inspection records for the six months prior to the audit (mid-May 2012 through mid-November 2012) for the construction projects visited during the audit. In response, NYSDOT provided the requested information, with the exception of the Sprain Brook Parkway construction project, which started within that six month time period. The EPA Audit Team conducted a review of the inspection records to assess the inspection frequency. During its review of the inspection records, the EPA Audit Team noted that stormwater inspections were conducted more than seven calendar days apart at each of the four construction projects visited during the audit. Table 2 provides a summary of these occurrences.

**Table 2. Construction Site Stormwater Runoff Control Inspection Frequency**

| Project | Required Inspection Frequency | Date of Previous Inspection | Date of Next Inspection | Number of Days Between Inspections |
|---|---|---|---|---|
| Interstate 287 Interchange 8 Construction Project | Weekly | 5/29/2012 | 6/12/2012 | 14 |
| | | 9/25/2012 | 10/3/2012 | 8 |
| Route 9W at Short Clove Road Construction Project | Weekly* | 5/22/2012 | 5/31/2012 | 9 |
| | | 6/4/2012 | 6/13/2012 | 9 |
| | | 6/13/2012 | 6/28/2012 | 15 |
| | | 6/28/2012 | 7/16/2012 | 18 |
| | | 8/2/2012 | 8/13/2012 | 11 |
| | | 8/23/2012 | 9/19/2012 | 27 |
| | | 9/19/2012 | 10/1/2012 | 12 |
| | | 10/5/2012 | 10/17/2012 | 12 |
| | | 10/17/2012 | 11/21/2012 | 35 |
| Route 9W over Cedar Pond Brook Stage 2 Construction Project | Weekly | 11/1/2012 | 11/9/2012 | 8 |
| | | 11/21/2012 | 11/29/2012 | 8 |
| Sprain Brook Parkway over Route 119 Construction Project | Weekly | 8/22/2012 | 8/30/2012 | 8 |
| | | 10/22/2012 | 10/30/2012 | 8 |
| | | 11/5/2012 | 11/13/2012 | 8 |
| | | 11/20/2012 | 11/28/2012 | 8 |

*The NYSDOT Environmental Specialist (Mr. Scott Davis) explained that the inspection frequency had been reduced to monthly at a certain point because active construction was complete and vegetation had been established. The EPA Audit Team did not note the specific date on which the inspection frequency was changed. However, the inspections are noted as either "Standard 7 calendar day inspection" or "Received 0.5 in or more of rain in a 24 hour period" on the MURK-6 inspection forms.

### 2.3.3. NYSDOT did not have written procedures to ensure that consultant stormwater inspectors have certifications/qualifications at least equivalent to those outlined in the NYS Construction General Permit prior to conducting erosion and sediment control inspections for NYSDOT projects.

As stated above, Part VIII.4.a.i of the Permit requires NYSDOT to develop, implement, and enforce a program that provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities.

Part IV.C of the Construction General Permit states that the owner or operator shall have a "qualified inspector" conduct site inspections. "Qualified inspector" is defined in Appendix A of the Construction General Permit as the following:

> a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s). It can also mean someone working under the direct supervision

> of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years. It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Pursuant to this requirement, Section IV.3.d of the NYSDOT SWMP Plan states that projects covered under the Construction General Permit must be inspected by persons certified as qualified inspectors. In addition, the NYSDOT SWMP Plan explains that "NYSDOT conducted 4-hour training endorsed by NYSDEC to NYSDOT Construction and Environmental staff in February and March 2010, and in June 2011." It was unclear to the EPA Audit Team whether all NYSDOT staff that conduct construction stormwater inspections work under the direct supervision of a Professional Engineer or Registered Landscape Architect.

The NYSDOT CEC and environmental specialists explained that projects may utilize NYSDOT staff or may hire a consultant inspector to conduct the stormwater inspections. NYSDOT staff explained that the document titled "Scope of Services – Erosion and Sediment Control Services" (see Appendix F, Exhibit 7) outlines the requirements for consultant inspectors who perform construction stormwater inspections on behalf of NYSDOT. The EPA Audit Team reviewed the scope of services document and noted that it does not clearly identify what specific level of training the erosion and sediment control inspector must have to conduct inspections. For example, the scope of services does not specify that the consultant inspector must work under the direct supervision of a professional engineer and have received the 4-hour erosion and sediment control training from NYSDEC. The NYSDOT CEC and Environmental Specialist (Mr. Scott Davis) explained that NYSDOT was working on refining the requirements of the consultant inspector scope of services to ensure that NYSDOT is provided with erosion and sediment control inspectors who meet the minimum training requirements and provide inspection services that satisfy NYSDOT's expectations.

Part III.A.6 and Part IV.C of the Construction General Permit include specific requirements for contractor personnel and site inspections. For example, Part III.A.6 of the Construction General Permit specifies that NYSDOT must require each contractor and subcontractor to identify a staff member responsible for SWPPP implementation (i.e., "trained contractor"), and have at least one trained contractor on site each day when soil disturbing activities are performed. As noted above, Part IV.C of the Construction General Permit specifies what level of training or supervision is required for staff responsible for performing stormwater inspections and the frequency at which inspections must be conducted.

The NYSDOT Environmental Specialist (Mr. Scott Davis) explained that prior to March or April 2012 he would accompany consultant inspectors on stormwater inspections to provide oversight and guidance. He added that he reviewed the associated inspection reports documented on the "MURK-6" inspection form and photograph logs. He explained that in either March or April 2012, NYSDOT Region 8 discontinued its direct participation and oversight of the on-site stormwater inspections conducted by consultant inspectors to eliminate the duplicate efforts of the consultant inspector and the NYSDOT oversight inspector. He explained that even though he was no longer present for the on-site inspections, he still reviewed reports prepared by the consultant inspectors. The EPA Audit Team noted that NYSDOT did not have written procedures in place explaining NYSDOT's oversight of consultant stormwater inspections.

During the audit, NYSDOT staff explained that the prime contractor responsible for each NYSDOT construction project is required to have at least one individual who has the 4-hour NYSDEC erosion and sediment control training on site at all times during active construction. The EPA Audit Team did not review contract document examples to verify whether this requirement was written into the contracts.

### 2.3.4. NYSDOT had not developed or implemented procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site stormwater runoff.

Part VIII.A.4.a.v of the Permit requires NYSDOT to do the following:

> Include procedures for receipt and follow up on complaints or other information by the public regarding construction site stormwater runoff.

The NYSDOT CEC explained that there is no established NYSDOT system to receive public complaints regarding construction sites, as most complaints are usually filed through NYSDEC. The NYSDOT Statewide Stormwater Program Coordinator explained that a stormwater complaint e-mail address is listed on the NYSDOT Stormwater Web page to receive public complaints about stormwater-related issues. Public complaint e-mails received by the NYSDOT Acting Regional Environmental Manager's office are maintained; however, the information is not maintained within a separate centralized database. At the time of the inspection, NYSDOT had not developed or implemented a stormwater complaint telephone hotline or procedures for routing calls related to stormwater issues to the appropriate staff.

The EPA Audit Team formally requested NYSDOT procedures for follow up on complaints and other information submitted by the public regarding construction site stormwater runoff (EPA Records Request Item No. 44). In response, NYSDOT provided the EPA Audit Team with a document titled "Informal Procedures for Receipt and Follow-up on Complaints from the Public Regarding Construction Sites" (see Appendix F, Exhibit 8). The document only explains follow-up procedures for public complaints that are filed through NYSDEC. If a complaint is received by NYSDEC, NYSDOT Environmental Group personnel are notified; the NYSDEC, the CEC, and the EIC participate in a meeting; and NYSDEC performs a site inspection. Once the inspection report has been received by NYSDOT, the CEC and EIC provide a correction deadline to

the contractor, and follow up daily until compliance has been achieved. The NYSDEC usually conducts a follow-up inspection once the contractor has addressed all issues noted in the inspection report. If a contractor does not address the issues noted in the inspection report, NYSDOT has the option to issue a stop-work order for the project.

### 2.3.5. NYSDOT maintained multiple lists and databases that include information regarding active construction sites.

Part VIII.A.4.a.viii of the Permit requires NYSDOT to develop, implement, and enforce a program that does the following:

> Establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information.

During the audit, the NYSDOT CEC explained that information regarding active construction sites, such as location and owner/operator contact information, is included in multiple lists and databases maintained by NYSDOT. For example, NYSDOT maintains a statewide electronic system called "Project Wise" which includes information regarding active construction sites. In addition, NYSDOT maintains a list titled "Region 8 Construction Environmental Staff Project Distribution" which displays active construction project names and the assigned stormwater inspectors.

Subsequent to the audit, the NYSDOT CEC provided several additional records that include information regarding active construction sites. For example, the "Status of Working Contracts" chart displays various information regarding each project contract (e.g., NYSDOT region, EIC, award date, total bid amount, percentage complete). In addition, the NYSDOT CEC provided two documents which identify contact information for the EIC assigned to each project and directions to the project trailer locations.

### 2.3.6. NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Construction Site Stormwater Runoff Control MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.4.a.iii of the Permit requires NYSDOT to develop, implement, and enforce a program that "incorporates mechanisms for construction runoff requirements from new development and redevelopment projects to the extent allowable under State and local law that meet the State's most current technical standards: through available mechanisms (ie. tenant lease agreements, bid specifications, requests for proposals, standard contract provisions, connection permits, maintenance directives / BMPS, access permits, consultant agreements, internal policies); procedures or policies must be developed for implementation and enforcement of the mechanisms; a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing the mechanisms for construction projects that occur on property owned, under easement to, within the right-of-way of, or under the maintenance jurisdiction by

the covered entity or within the maintenance jurisdiction of the MS4; and the mechanisms and directive must be equivalent to the to the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities."

- Part VIII.A.4.a.iv of the Permit requires NYSDOT to develop, implement, and enforce a program that "allows for sanctions to ensure compliance to the extent allowable by State law."
- Part VIII.A.4.a.vi of the Permit requires NYSDOT to develop, implement, and enforce a program that "educates construction site operators, design engineers, municipal staff and other individuals to whom these regulations apply about the construction requirements in the covered entity's jurisdiction, including the procedures for submission of SWPPPs, construction site inspections, and other procedures associated with control of construction stormwater."
- Part VIII.A.4.a.vii of the Permit requires NYSDOT to develop, implement, and enforce a program that "[e]nsures that construction site contractors have received erosion and sediment control training, including the trained contractors as defined in the SPDES general permit for construction, before they do work within the covered entity's jurisdiction: training may be provided by the Department or other qualified entities (such as Soil and Water Conservation Districts); the covered entity is not expected to perform such training, but they may co-sponsor training for construction site operators in their area; the covered entity may ask for a certificate of completion or other such proof of training; and the covered entity may provide notice of upcoming sediment and erosion control training by posting in the building department or distribute with building permit application."
- Part VIII.A.4.a.ix of the Permit requires NYSDOT to develop, implement, and enforce a program to "develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and select and implement appropriate construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP."

## *Section 2.4 Post-construction Stormwater Management*

Part VIII.A.5 of the Permit requires NYSDOT to develop, implement, and enforce a program to address post-construction stormwater management that satisfies the requirements at Part VIII.A.5.a–d of the Permit.

NYSDOT staff explained several aspects of its post-construction stormwater management program during the audit, including the process from planning through construction and long-term maintenance. NYSDOT staff explained that a pre-construction meeting is held with NYSDOT staff and applicable contractors to discuss post-construction BMP requirements for each applicable construction project. During the physical construction process, the BMPs are inspected to ensure that they are properly installed and a final inspection is conducted once the BMP is complete. Upon final approval (contingent on the final inspection) a serial number is assigned for each post-construction BMP and a GPS point/polygon is mapped in NYSDOT's GIS-based map.

NYSDOT staff explained that when a project including post-construction stormwater management BMPs is nearing completion, a form is populated and submitted internally which ensures the operations and maintenance of the post-construction BMP is transferred from NYSDOT Design to NYSDOT Maintenance. As part of the BMP transmittal process, NYSDOT Design staff conducts a first year inspection to determine the proper operation and maintenance activities required for the post-construction BMP over the next two years. Once the post-construction BMP has been transferred to NYSDOT Maintenance and the first year operation and maintenance requirements have been determined by NYSDOT Design, the BMP is then inspected at least once per year under a contract with a private contractor who also maintains the BMP. NYSDOT staff explained that after two years, NYSDOT Design staff re-inspects each post-construction BMP to evaluate whether additional operation and maintenance requirements are needed. NYSDOT staff stated that the first bid contract for post-construction BMP maintenance was awarded in 2000. NYSDOT staff explained that post-construction operation and maintenance activities are conducted the same way for areas inside and outside of the urbanized area.

NYSDOT staff explained that NYSDOT Region 8 developed an Operations and Maintenance (O&M) Manual to address the maintenance of post-construction BMPs. The manual includes inspection checklists for various types of post-construction BMPs as well as information regarding general maintenance. Section VI.1.e of the NYSDOT SWMP Plan states, "The manual is intended to provide general maintenance guidelines, emphasizing that properly designed facilities will last longer due to well thought-out maintenance provisions."

At the time of the audit, NYSDOT was transferring its post-construction BMP information from the regional BMP tracking database to a statewide database. NYSDOT staff explained that the statewide database will have the ability to record and show all maintenance events that occur at each post-construction BMP. They added that the statewide database is modeled after the database originally created by NYSDOT Region 8.

The EPA Audit Team visited several post-construction BMPs during field activities conducted as a component of the audit. No significant observations were noted during the post-construction BMP site visits.

### 2.4.1 NYSDOT did not have a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing mechanisms for construction projects on NYSDOT property.

Part VIII.A.5.a.iii of the Permit requires NYSDOT to develop the following:

> a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing mechanisms for construction projects that occur on property owned by the covered entity or with the maintenance jurisdiction of the MS4.

The EPA Audit Team formally requested NYSDOT's "[w]ritten directive from person authorized to sign NOI stating regulatory mechanisms must be used and describing positions responsible for compliance" (EPA Records Request Item No. 50); however, NYSDOT did not provide the requested information. In response, NYSDOT provided a document titled "Region 8 MS4 Coordination Vacancy Announcement" (see Appendix F, Exhibit 1), which was a NYSDOT regional bulletin describing an MS4-related job opening. Further, NYSDOT staff did not provide the written directive during the audit

## *Section 2.5 Pollution Prevention/Good Housekeeping for Municipal Operations*

Part VIII.A.6.a of the Permit requires NYSDOT to develop and implement a pollution prevention/good housekeeping program for municipal operations and facilities that satisfies the requirements at Part VIII.A.6.a–e of the Permit.

Part VIII.A.6.a.i of the Permit specifies that NYSDOT's program for pollution prevention/good housekeeping must address the following:

> Municipal operations and facilities that contribute or potentially contribute POCs [pollutants of concern] to the small MS4 system. The operations and facilities may include, but are not limited to: street and bridge maintenance; winter road maintenance; stormwater system maintenance; vehicle and fleet maintenance; park and open space maintenance; municipal building maintenance; solid waste management; new construction and land disturbances; right-of-way maintenance; marine operations; hydrologic habitat modification; or other.

### 2.5.1. NYSDOT had not performed and documented a self-assessment of all municipal operations and facilities.

Part VIII.A.6.a.ii of the Permit requires NYSDOT's program to include the following:

> performance and documentation of a self-assessment of all municipal operations to determine the sources of pollutants potentially generated by the covered entity's operations and facilities, and identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program.

The NYSDOT SWMP Plan does not specifically address this requirement for conducting self-assessments of NYSDOT facilities. During on-site discussions, the NYSDOT Environmental Specialist I/Acting MEC stated that NYSDOT had not performed self-assessments of NYSDOT facilities specifically for stormwater purposes.

The EPA Audit Team formally requested documentation of self-assessments of all NYSDOT operations and facilities for the current Permit term (EPA Records Request Item No. 25), but NYSDOT did not provide the requested information. In response, NYSDOT provided its "Spill Prevention, Control, and Countermeasure (SPCC) Plan Development" template, instructions, and guidance documents (see NYSDOT Response Inventory, Appendix E, Item No. 25). In addition, the EPA Audit Team requested records of NYSDOT facility inspections conducted for stormwater purposes for the most recent reporting year, but NYSDOT did not provide the requested information (see NYSDOT Response Inventory, Appendix E, Item No. 26).

### 2.5.2. NYSDOT had not developed or implemented an adequate pollution prevention/good housekeeping training program.

Part VIII.A.6.a.vi of the Permit requires NYSDOT's program to include the following:

> an employee pollution prevention and good housekeeping training program and ensure that staff receive and utilize training.

The NYSDOT SWMP Plan does not specifically address this requirement to develop and implement a pollution prevention/good housekeeping training program.

The EPA Audit Team formally requested NYDOT's employee/maintenance personnel training plan, records, and syllabus pertaining to pollution prevention/good housekeeping for the most recent reporting year (EPA Records Request Item No. 33). In response, NYSDOT provided the EPA Audit Team with a document titled "Employee Maintenance Personnel Training" (see Appendix F, Exhibit 9). The document describes two types of stormwater pollution prevention trainings provided to NYSDOT Region 8 staff since 2008. The first was a stormwater pollution prevention video presented by the NYSDOT Acting MEC to staff at various maintenance facilities (the document does not specify which facilities or staff received the training). The EPA Audit Team learned during the audit that the stormwater training video was only presented to staff at NYSDOT Region 8 residencies, not other fixed facilities (e.g., Region 8 Equipment Management Shop or Region 8 Special Crew Facility). The second stormwater pollution prevention training listed in the document was a stormwater pollution prevention training administered by Dutchess County in 2008 and 2010 (the document does not specify which facilities or staff received the training). The NYSDOT Environmental Specialist I/Acting MEC explained that only NYSDOT Region 8 residency employees attended the training.

Through on-site discussions during inspections of NYSDOT residencies and fixed facilities conducted during the audit, the EPA Audit Team observed a widely varying level of stormwater awareness amongst NYSDOT staff.

In summary, NYSDOT did not demonstrate to the EPA Audit Team that it had developed a structured program for pollution prevention and good housekeeping training activities. Specifically, the program should include established schedules and frequencies for training activities, identification of staff or positions that require training, procedures for documenting and tracking training activities, and measurable goals for assessing the implementation of the training program.

### 2.5.3. NYSDOT had not developed or implemented SWPPPs for its operation and maintenance facilities.

Part VIII.A.6.a of the MS4 Permit requires that a pollution prevention/good housekeeping program be developed for all operations and facilities that contribute or potentially contribute pollutants of concern. For each municipal operation and facility, the MS4 must conduct a self-assessment to determine the potential pollutants generated and their sources (Part VIII.A.6.a.ii); determine management practices, policies, procedures etc…that will be developed and implemented to reduce or prevent the discharge of potential pollutants at that facility or operation (Part VIII.A.6.a.iii); and, select and implement site specific pollution prevention and good housekeeping BMPs to ensure the reduction of all pollutants identified in the self-assessment to the maximum extent practicable (Part VIII.A.6.d). The MS4 permit references the "NYS Pollution Prevention & Good Housekeeping Assistance document" or other guidance materials available from the EPA, the State or other organizations (Part VIII.A.6.a.iii).

Highway maintenance facilities include vehicle and equipment maintenance shops (vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations, and salt storage for road deicing activities that have the potential to generate pollution that need to be included in the pollution prevention/good housekeeping program developed for that facility. The SPDES Multi-Sector General Permit (GP-0-12-001) (Sectors P & AE) contains appropriate BMPs that address these types of activities. This document can be used as a guide in development of an appropriate pollution prevention/good housekeeping program for these types of facilities. Sector AE requires permit coverage for facilities that have been notified by NYSDEC to seek coverage. NYSDOT operation and maintenance facilities have not been notified that MSGP coverage is required. However, NYSDOT facilities are still subject to the requirements of the MS4 Permit (Parts VIII.A.6.a.ii, VIII.A.6.a.iii and VIII.A.6.d) which require development and implementation of a pollution prevention/good housekeeping program addressing specific elements.

During the inspection of multiple NYSDOT operation and maintenance facilities conducted as a component of the audit, the EPA Audit Team noted that site specific pollution prevention/good housekeeping programs had not been developed or implemented for the facilities. Further, the Statewide Stormwater Program Coordinator stated that site specific plans had not been developed or implemented for NYSDOT facilities statewide. Specific facility observations are further discussed below in Section 2.5.4; individual site visit write-ups are included as Appendix H.

The EPA Audit Team formally requested an example of a NYSDOT facility stormwater pollution prevention plan (EPA Records Request Item No. 22). In response, NYSDOT provided its "Spill Prevention, Control, and Countermeasure (SPCC) Plan Development" template, instructions, and guidance documents (see NYSDOT Response Inventory, Appendix E, Item No. 22). The SPCC plans provided contained information regarding spills, but did not include facility-specific stormwater BMPs as required by Part VIII.A.6.a.i thru iii and Part VIII.A.6.d.

NYSDOT's *Environmental Handbook for Transportation Operations* (hereinafter, Handbook) specifies general procedures to be followed for a subset of potential sources of pollution from their facilities; however, the information is generic, did not provide adequate procedures to prevent the discharge of certain pollutants, and did not cover all potential sources of pollutants (i.e., handling and storage of scrap metal).

In summary, neither NYSDOT's SPCC Plan nor the Handbook meet the requirements outlined in Part VIII.6 of the MS4 General Permit.

### 2.5.4 Deficiencies were noted during inspections of NYSDOT residencies and fixed facilities conducted as a component of the audit.

Part VIII.A.6.d of the Permit requires NYSDOT to do the following:

> Select and implement appropriate pollution prevention and good housekeeping BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

On November 27–29, 2012, the EPA Audit Team, along with NYSDOT staff, visited several NYSDOT residencies and fixed facilities inside the MS4 area. The primary purpose of the facility site visits was to document site conditions and to assess NYSDOT pollution prevention and good housekeeping activities performed by the facilities. During the site visits, the EPA Audit Team walked the facilities with NYSDOT representatives.

The following facilities were visited during the audit:

- Fairview Residency 8-2 – North/Central Dutchess County.
- NYSDOT Region 8 Equipment Management Shop.
- Kingston Residency 8-7 – Ulster County.
- Newburgh Residency 8-4 – Orange County East.
- NYSDOT Region 8 Special Crews Facility – Poughkeepsie.
- Carmel Residency 8-3 – Southern Dutchess/Putnam Counties.
- Katonah Residency 8-8 – Westchester County.
- 52 Storage Yard – Southern Dutchess/Putnam Counties.

The EPA Audit Team identified multiple findings regarding pollution prevention and good housekeeping for the facilities. Detailed observations and photographs from the facility inspections are presented in individual site visit reports included as Appendix H. A summary of observations from each facility site visit is included below.

*Fairview Residency 8-2* – The primary activities conducted at the Fairview Residency consist of vehicle/equipment storage and maintenance, fueling, and material storage (i.e., millings, salt, and scrap metal). Stormwater discharges from the facility are primarily conveyed to a stormwater basin at the NYSDOT Region 8 Equipment Management Shop, adjacent to the facility. Stormwater inspections had not been conducted by NYSDOT staff at the facility. Stormwater-related training had not been conducted for facility personnel. NYSDOT had not developed or implemented a SWPPP for the facility. Physical issues noted during the site visit include the following:

1. A scrap metal pile containing hazardous materials located near the property line and stormwater pond located at Region 8 Equipment Management Shop.
2. Outdoor vehicle and equipment washing regularly conducted near storm drains.
3. An uncontained and uncovered scrap metal pile.
4. Petroleum sheen on impervious and pervious surfaces.
5. Open dumpster.

*NYSDOT Region 8 Equipment Management Shop* – The primary activities conducted at the Equipment Management Shop consist of vehicle/equipment storage and maintenance. The facility contains an on-site stormwater pond which discharges to an unnamed stream. Stormwater and oil/water separator inspections had not been conducted at the facility.

The NYSDOT Environmental Specialist I/Acting MEC was not providing stormwater pollution prevention oversight at the facility and stormwater training had not been conducted for facility personnel. NYSDOT had not developed or implemented a SWPPP for the facility. Facility personnel were not aware of the physical location of the oil/water separator at the facility. In addition, facility personnel were not aware of stormwater drainage patterns or the ultimate discharger location of the oil/water separator (e.g., sanitary sewer or stormwater pond). Physical issues noted during the site visit include the following:

1. An uncontained and uncovered scrap metal pile located upgradient of the on-site stormwater pond.
2. Petroleum sheen visible on impervious surface of outdoor vehicle/equipment storage areas.
3. Vehicles/equipment leaking petroleum products.
4. Unknown fluid staining on impervious surface adjacent to stormwater conveyance culvert.
5. Improper storage of used 55-gallon drums.

*Kingston Residency 8-7* – The primary activities conducted at the Kingston Residency consist of vehicle/equipment storage and maintenance, fueling, and material storage (i.e., brine, salt). Stormwater runoff from the facility is primarily conveyed to two storm drain inlets along the western perimeter of the site which discharge to conveyances that flow to the Hudson River. Stormwater inspections had not been conducted at the facility. Stormwater training had not been conducted for facility personnel. NYSDOT has not developed or implemented a SWPPP for the facility. Physical issues noted during the site visit include the following:

1. Outdoor vehicle/equipment washing regularly conducted near storm drains.
2. Petroleum sheen visible on impervious surface of outdoor vehicle/equipment storage areas and in storm drains.
3. Vehicles/equipment leaking petroleum products.
4. Improper loading/unloading practices for brine equipment.
5. Accumulated sediment around and inside storm drain inlets.
6. Improper materials storage.

*Newburgh Residency 8-4* – The primary activities conducted at the Newburgh Residency consist of vehicle/equipment storage and maintenance, fueling, and material storage (i.e., salt). NYSDOT had not developed or implemented a SWPPP for the facility; however, based upon a review of the facility's location in comparison to the City of Newburgh's combined sewer system, it appeared that stormwater from the facility drained to the combined sewer system. Facility personnel and the NYSDOT Environmental Specialist I/Acting MEC were not aware or were uncertain that flows from the facility went to a combined sewer system. Stormwater inspections had not been conducted at the facility. Stormwater training had not been conducted for facility personnel. Physical issues noted during the site visit include the following:

1. Outdoor vehicle/equipment washing near storm drains.
2. Visible petroleum sheen on wash water discharge to storm drain.
3. Petroleum sheen visible on impervious surface of outdoor vehicle/equipment storage areas and in storm drains.
4. Vehicles/equipment leaking petroleum products.
5. An uncontained and uncovered scrap metal pile.
6. Accumulated sediment around and inside storm drains.
7. Improper materials storage.

*NYSDOT Region 8 Special Crews Facility* – The primary activities conducted at the NYSDOT Region 8 Special Crews Facility consist of vehicle/equipment storage and maintenance, fueling, material storage (i.e., chemicals, paint, salt), and paint strip testing. Stormwater runoff from the facility is primarily conveyed to multiple storm drain inlets along the interior of the facility; these drains discharge to conveyances that flow to Casper Creek. NYSDOT had not developed or implemented a SWPPP for the facility. Stormwater inspections had not been conducted at the facility. Stormwater training had not been conducted for the facility personnel. Physical issues noted during the site visit include the following:

1. Visible paint accumulation in and around storm drain inlet.
2. Petroleum/rust staining visible on impervious surface of outdoor vehicle/equipment storage areas.
3. Improper materials and fluid storage.

*Carmel Residency 8-3* – The primary activities conducted at the Carmel Residency consist of vehicle/equipment storage and maintenance, fueling, and material storage (i.e., sand, salt). Stormwater runoff from the facility is primarily conveyed to multiple points of discharge along the western perimeter of the site which discharge to Stump Pond Stream. NYSDOT had not developed or implemented a SWPPP for the facility. Stormwater inspections had not been conducted at the facility. Stormwater training had not been conducted for facility personnel. Physical issues noted during the site visit include the following:

1. Petroleum staining visible on impervious surface of outdoor vehicle/equipment storage areas.
2. Outdoor vehicle/equipment washing near storm drains.
3. Improper materials and fluid storage.
4. Evidence of erosion downgradient of stormwater discharge location.
5. Erosion occurring on sand stockpile upgradient of stormwater conveyance channel.
6. Vehicle/equipment parking area over storm drain inlet.

*Katonah Residency 8-8* – The primary activities conducted at the Katonah Residency consist of vehicle/equipment storage and maintenance, fueling, and material storage (i.e.,

sand, salt). The facility is located on a peninsula in the New Croton Reservoir and is surrounded by water on three sides (north, west, and south). Stormwater runoff from the active areas of the facility is primarily conveyed via overland flow offsite. NYSDOT had not developed or implemented a SWPPP for the facility. Stormwater inspections had not been conducted at the facility. Stormwater training had not been conducted for facility personnel. Physical issues noted during the site visit include the following:

1. Staining on impervious ground surface.
2. Containers of liquids stored outside without coverage or containment.
3. Salt beyond the salt storage dome.
4. Equipment with residue and staining stored outside in an uncovered area.
5. Gas container and fuel tank in scrap metals disposal pile.

*52 Remote Storage Yard* – The primary activities conducted at the 52 Remote Storage Yard consist of vehicle/equipment storage and material storage (i.e., salt). In addition, NYSDOT staff stated that on occasion the facility may be used as a staging area by NYSDOT contractors conducting roadway maintenance and construction in the vicinity. The facility is not staffed on a daily basis. Stormwater runoff from the facility is primarily conveyed to the northern corner of the facility, where it ponds and overflows into an adjacent wetland to the north. It was understood by the EPA Audit Team that salt storage practices many years prior to the EPA audit had caused the contamination of groundwater at the facility and surrounding area. The facility was not included in NYSDOT's inventory of facilities that may potentially contribute pollutants of concern to the MS4 Stormwater inspections had not been conducted at the facility. NYSDOT had not developed or implemented a SWPPP for the facility. During the site visit, the EPA Audit Team noted concrete waste on ground surface near a soil stockpile in the area occasionally used for staging by NYSDOT contractors.

### 2.5.5. NYSDOT is subject to additional Permit requirements for program implementation.

The EPA Audit Team did not comprehensively evaluate all Permit requirements within the Pollution Prevention/Good Housekeeping for Municipal Operations MCM. In addition to the Permit requirements identified in the findings above, NYSDOT is subject to the following Permit requirements not directly associated with findings in this report.

- Part VIII.A.6.a.iii of the Permit requires NYSDOT to develop and implement a program that "determines management practices, policies, procedures, etc. that will be developed and implemented to reduce or prevent the discharge of (potential) pollutants." Refer to management practices identified in the "NYS Pollution Prevention and Good Housekeeping Assistance Document" or other guidance materials available from the EPA, the State, or other organizations."
- Part VIII.A.6.a.iv of the Permit requires NYSDOT to develop and implement a program that "prioritizes pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations most in need of modification or improvement, and covered entity's capabilities."

- Part VIII.A.6.a.v of the Permit requires NYSDOT to develop and implement a program that "addresses pollution prevention and good housekeeping priorities."
- Part VIII.A.6.a.vii of the Permit specifies that NYSDOT's program for pollution prevention/good housekeeping must require "third party entities performing contracted services, including but not limited to, street sweeping, snow removal, lawn / grounds care, etc., to make the necessary certification in Part IV.G [of the Permit]."
- Part VIII.A.6.b of the Permit requires NYSDOT to "consider and incorporate cost effective runoff reduction techniques and green infrastructure in the routine upgrade of the existing stormwater conveyance systems and municipal properties to the MEP."
- Part VIII.A.6.c of the Permit requires NYSDOT to "develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals."
- Part VIII.A.6.e of the Permit requires NYSDOT to "adopt techniques to reduce the use of fertilizers, pesticides, and herbicides, as well as potential impact to surface water."

## *Section 2.6 Watershed Improvement Strategy Requirements*

Part IX of the Permit requires NYSDOT to do the following:

> Develop or modify their SWMP to address the watershed specific additional requirements to achieve the pollutant load reduction by the deadline as defined in the Tables in Part IX of this permit. Part IX further states that MS4 portion of the pollutant load reduction shall be achieved by implementation of BMPs required of all MS4s, reductions from implementation of additional BMPs for watershed improvement strategy areas including any retrofits required by this permit.

NYSDOT is subject to total maximum daily loads (TMDLs) for phosphorus in the New York City East of Hudson (EOH) Watershed and the Greenwood Lake Watershed. The EPA Audit Team focused their inspection efforts on a review of NYSDOT's watershed improvement strategies and retrofit plans in those two watersheds; therefore, a comprehensive review of compliance with all permit requirements regarding TMDLs was not conducted.

*NYC EOH Watershed*

NYSDOT is subject to the EOH Watershed Phosphorus TMDL for designated sewersheds in Dutchess, Putnam, and Westchester Counties. NYSDOT reported in its SWMP that NYSDOT has approximately 290 miles of roadways under its jurisdiction in this watershed (which accounts for approximately 16% of all of the roadways in the watershed).

Table IX.A (Pollutant Load Reduction and Timetable for the New York City East of Hudson Phosphorus Watershed Improvement Strategy Area) of the Permit required NYSDOT to submit a retrofit plan to NYSDEC by March 9, 2009. The Retrofit Plan was originally submitted to NYSDEC in December 2010 and has since been edited in order to incorporate comments received from NYSDEC in January 2011. The Retrofit Plan provided to the EPA Audit Team is dated March 2011. The Acting Regional Environmental Manager stated that NYSDOT provides NYSDEC with an annual update on their progress via e-mail.

The Acting Regional Environmental Manager stated that NYSDOT prepared the *New York State Department of Transportation (NYSDOT) 5 year Phosphorus Retrofit Plan* (hereinafter, Retrofit Plan) as a planning tool to reduce total phosphorus within the New York City EOH watershed per the requirements of Part IX.A.5.b.iv of the Permit. The March 30, 2011 Retrofit Plan was developed by a small technical team of Region 8 NYSDOT staff that focused on the strategy to achieve pollutant load reductions in accordance with the TMDL and available funding.

The Retrofit Plan identifies three stand-alone retrofit projects along the state highway system and NYSDOT maintenance facilities. The projects have a combined estimated construction cost of about $2.4 million. The Region Environmental Manager stated that $2.5 million had been allocated from state-generated General Funds for completion of the three projects.

The three projects identified in the Retrofit Plan are in various stages of completion.

- PIN 8811.50/ D 262137 (Estimated project cost of $400,000) has been designed and was out to bid at the time of this EPA Audit. The Acting Regional Environmental Manager stated that construction on the project was expected to begin in 2012.
- PIN8811.71 (Estimated project cost of $1 million) has received design approval and was progressing into the final design stage at the time of this EPA Audit. The Acting Regional Environmental Manager Construction stated that construction was expected to be initiated in 2013.
- PIN 8811.75 (Estimated project cost of $1 million) was in the design approval stage. The Acting Regional Environmental Manager stated that construction was expected to be initiated in 2014.

*Greenwood Lake Watershed*

NYSDOT is subject to the Greenwood Lake Watershed Phosphorus TMDL in designated sewersheds in Orange County and a small portion of northwest Rockland County. NYSDOT has only two roadways in the Greenwood Lake Watershed (Route 17A and Route 210). According to the NYSDOT Acting Regional Environmental Manager and the NYSDEC representative, NYSDOT had not yet been allocated a pollutant load reduction for the watershed by NYSDEC.

Table IX.B of the Permit required NYSDOT to submit a retrofit plan to NYSDEC by March 9, 2011. The Acting Regional Environmental Manager stated that NYSDOT had not yet developed a retrofit plan because they had not been allocated a pollutant load reduction. The Acting Regional Environmental Manager further stated that NYSDOT met with representatives of the Village of Greenwood Lake and NYSDEC in August 2012 to determine how to best move forward once the allocations are assigned.